FIG.1 PRIOR ART

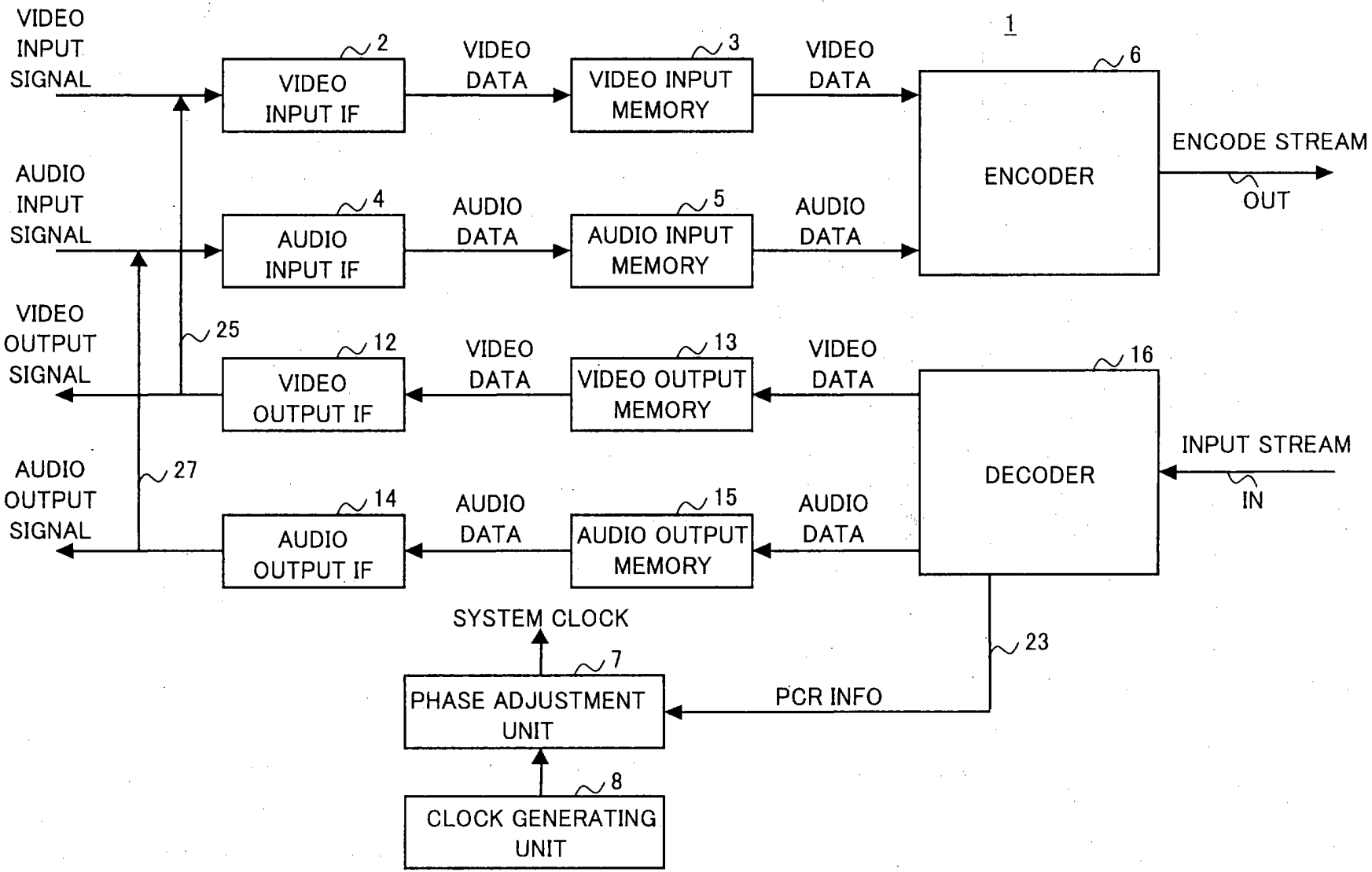


FIG.2A

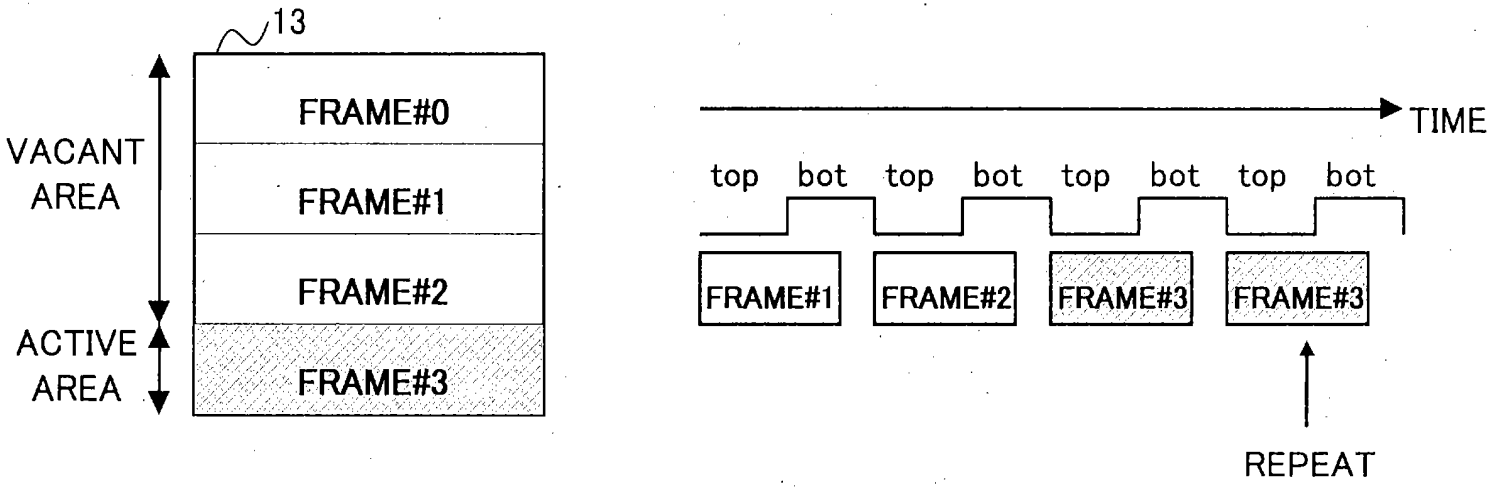

13
VACANT AREA
ACTIVE AREA
FRAME#0
FRAME#1
FRAME#2
FRAME#3
TIME
top
bot
top
bot
top
bot
top
bot
FRAME#1
FRAME#2
FRAME#3
FRAME#3
REPEAT

FIG.2B

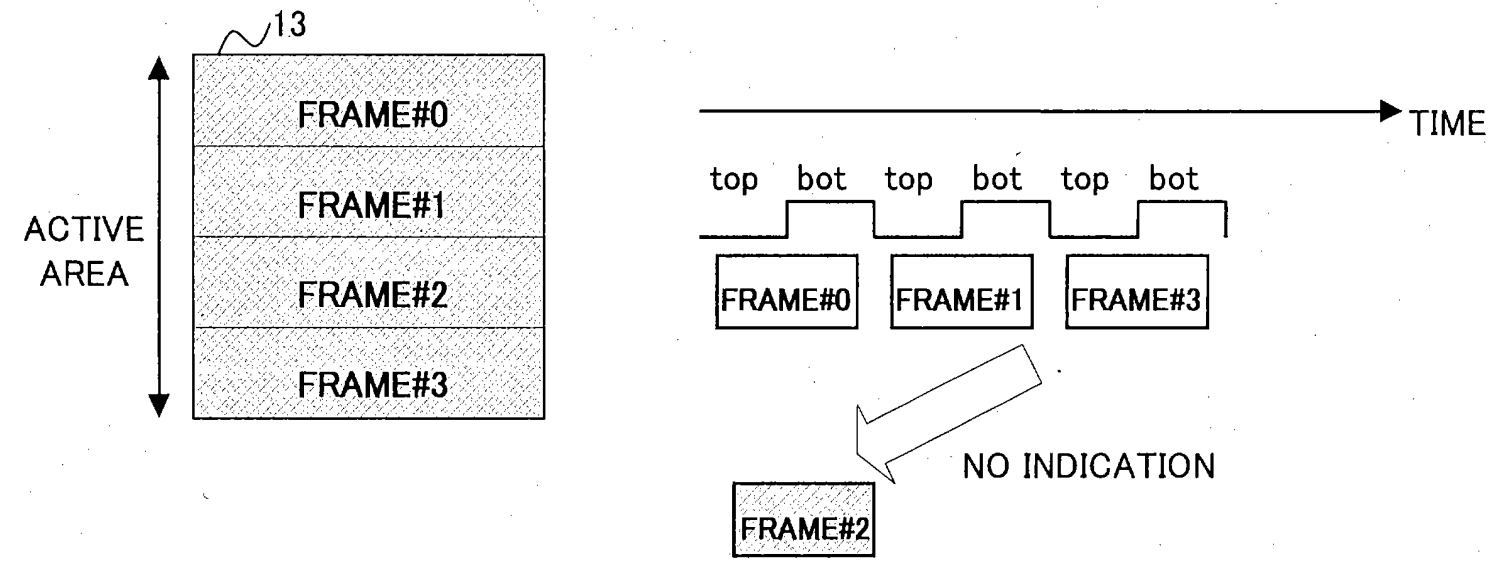

13
ACTIVE AREA
FRAME#0
FRAME#1
FRAME#2
FRAME#3
TIME
top
bot
top
bot
top
bot
FRAME#0
FRAME#1
FRAME#3
NO INDICATION
FRAME#2

FIG.3

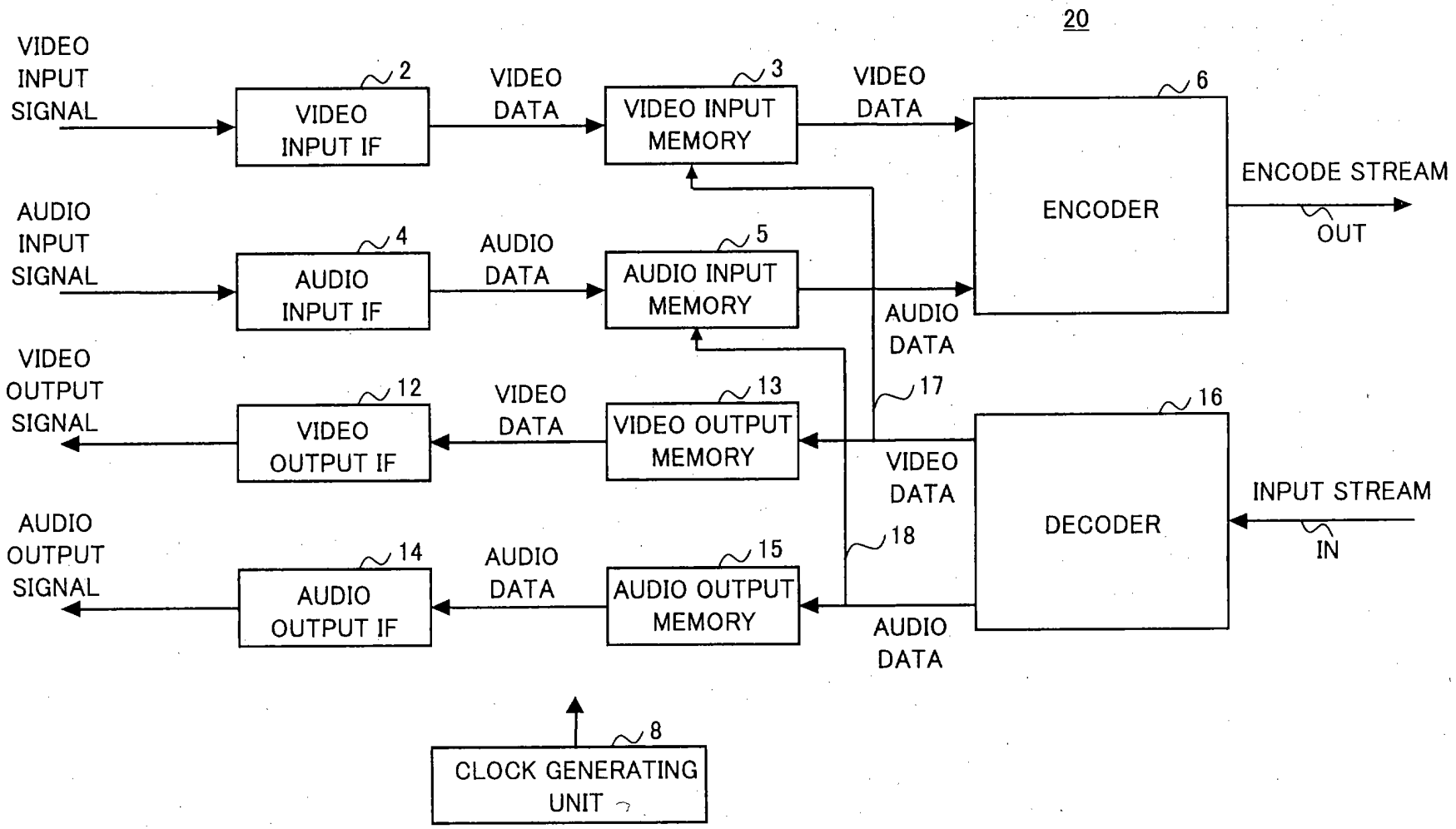

20
VIDEO INPUT SIGNAL
2
VIDEO INPUT IF
VIDEO DATA
3
VIDEO INPUT MEMORY
VIDEO DATA
6
ENCODER
ENCODE STREAM
OUT
AUDIO INPUT SIGNAL
4
AUDIO INPUT IF
AUDIO DATA
5
AUDIO INPUT MEMORY
AUDIO DATA
VIDEO OUTPUT SIGNAL
12
VIDEO OUTPUT IF
VIDEO DATA
13
VIDEO OUTPUT MEMORY
17
VIDEO DATA
16
DECODER
INPUT STREAM
IN
AUDIO OUTPUT SIGNAL
14
AUDIO OUTPUT IF
AUDIO DATA
15
AUDIO OUTPUT MEMORY
18
AUDIO DATA
8
CLOCK GENERATING UNIT

FIG.4

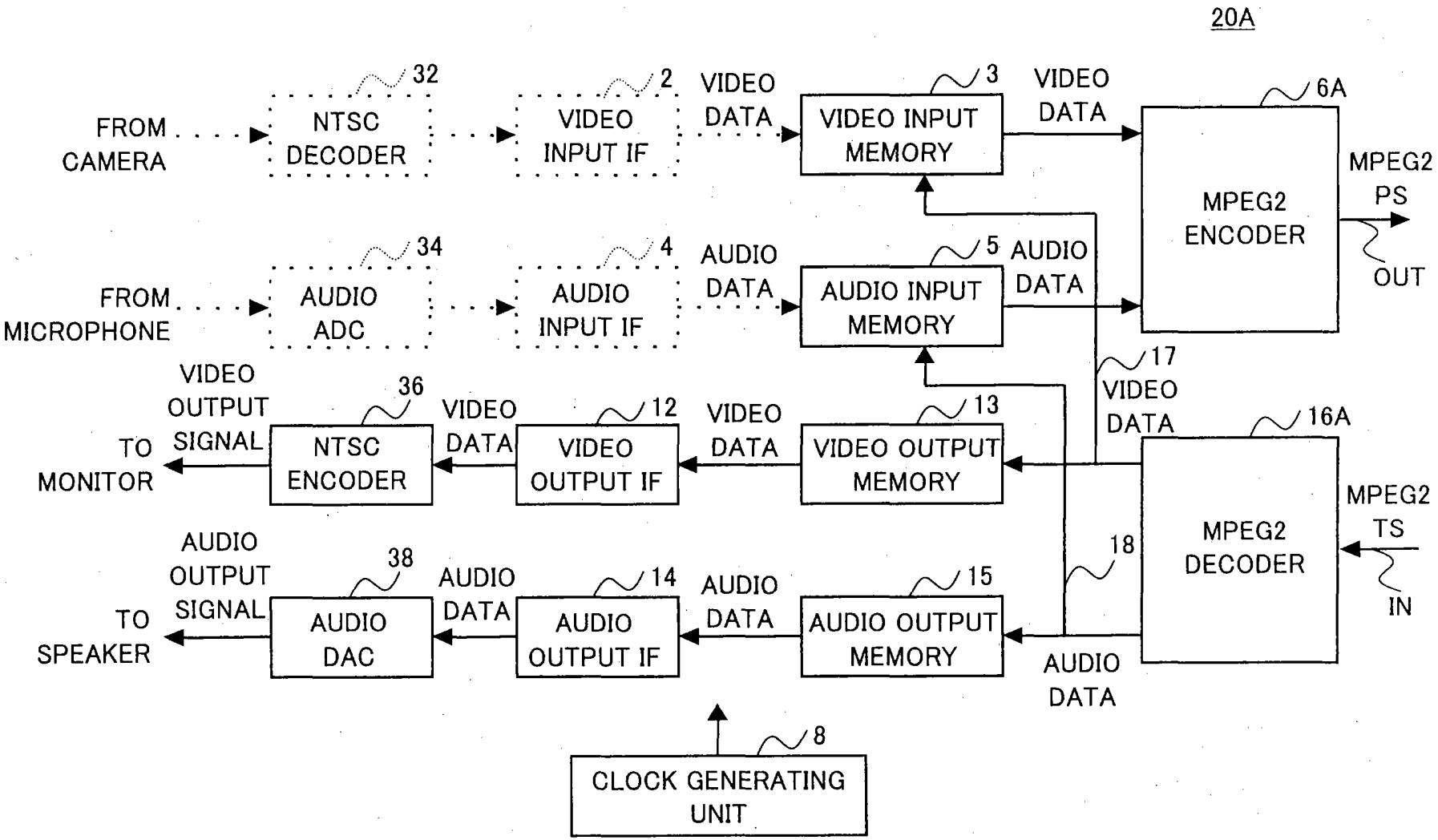

20A
FROM CAMERA
32
NTSC DECODER
2
VIDEO INPUT IF
VIDEO DATA
3
VIDEO INPUT MEMORY
VIDEO DATA
6A
MPEG2 ENCODER
MPEG2 PS
OUT
FROM MICROPHONE
34
AUDIO ADC
4
AUDIO INPUT IF
AUDIO DATA
5
AUDIO INPUT MEMORY
AUDIO DATA
17
VIDEO DATA
VIDEO OUTPUT SIGNAL
TO MONITOR
36
NTSC ENCODER
VIDEO DATA
12
VIDEO OUTPUT IF
VIDEO DATA
13
VIDEO OUTPUT MEMORY
16A
MPEG2 DECODER
MPEG2 TS
IN
AUDIO OUTPUT SIGNAL
TO SPEAKER
38
AUDIO DAC
AUDIO DATA
14
AUDIO OUTPUT IF
AUDIO DATA
15
AUDIO OUTPUT MEMORY
18
AUDIO DATA
8
CLOCK GENERATING UNIT

FIG.5

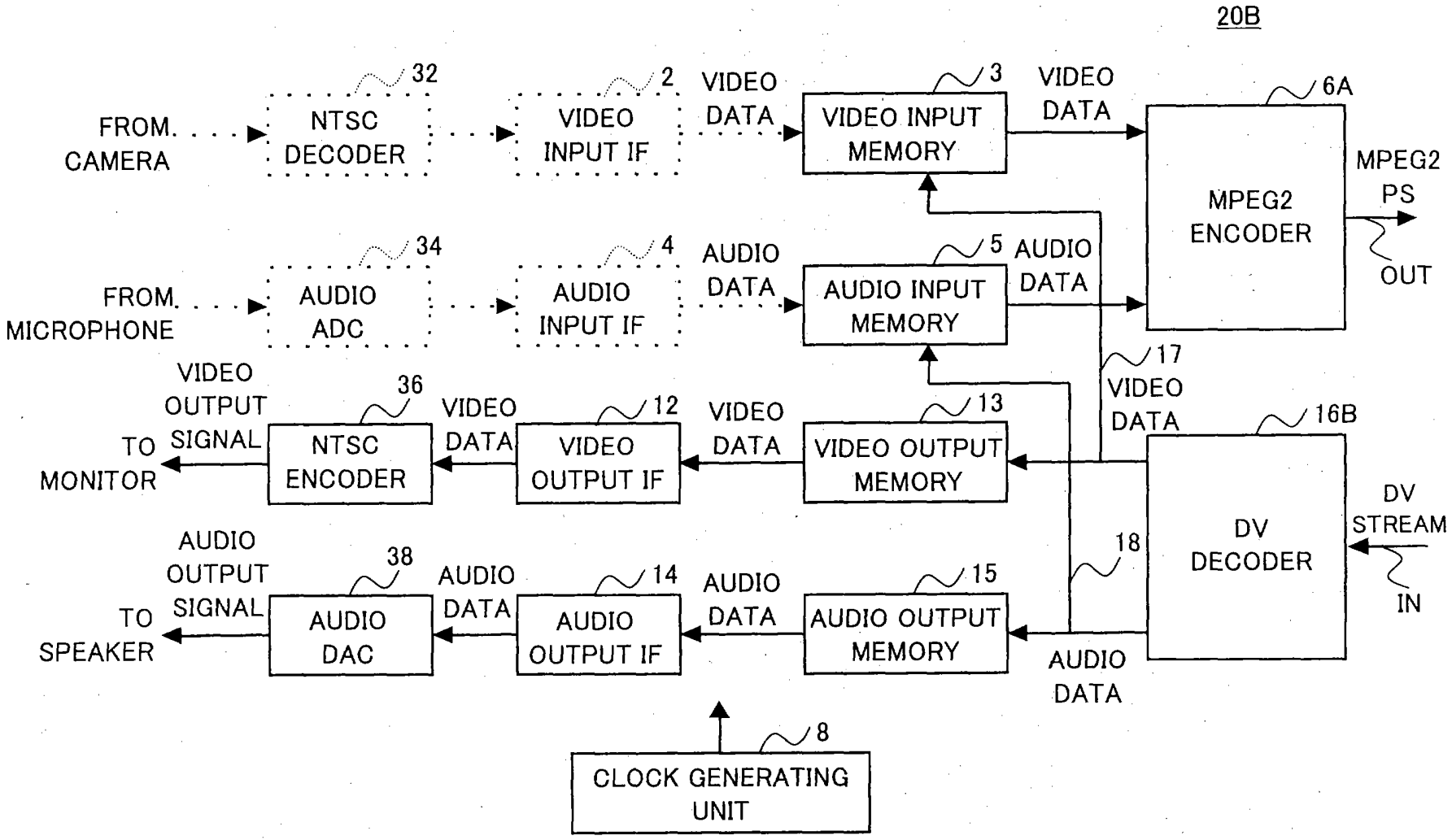

20B
32
NTSC DECODER
FROM. CAMERA
2
VIDEO INPUT IF
VIDEO DATA
3
VIDEO INPUT MEMORY
VIDEO DATA
6A
MPEG2 ENCODER
MPEG2 PS
OUT
34
AUDIO ADC
FROM. MICROPHONE
4
AUDIO INPUT IF
AUDIO DATA
5
AUDIO INPUT MEMORY
AUDIO DATA
17
VIDEO DATA
16B
DV DECODER
DV STREAM
IN
18
VIDEO OUTPUT SIGNAL
TO MONITOR
36
NTSC ENCODER
VIDEO DATA
12
VIDEO OUTPUT IF
VIDEO DATA
13
VIDEO OUTPUT MEMORY
AUDIO OUTPUT SIGNAL
TO SPEAKER
38
AUDIO DAC
AUDIO DATA
14
AUDIO OUTPUT IF
AUDIO DATA
15
AUDIO OUTPUT MEMORY
AUDIO DATA
8
CLOCK GENERATING UNIT

FIG.6

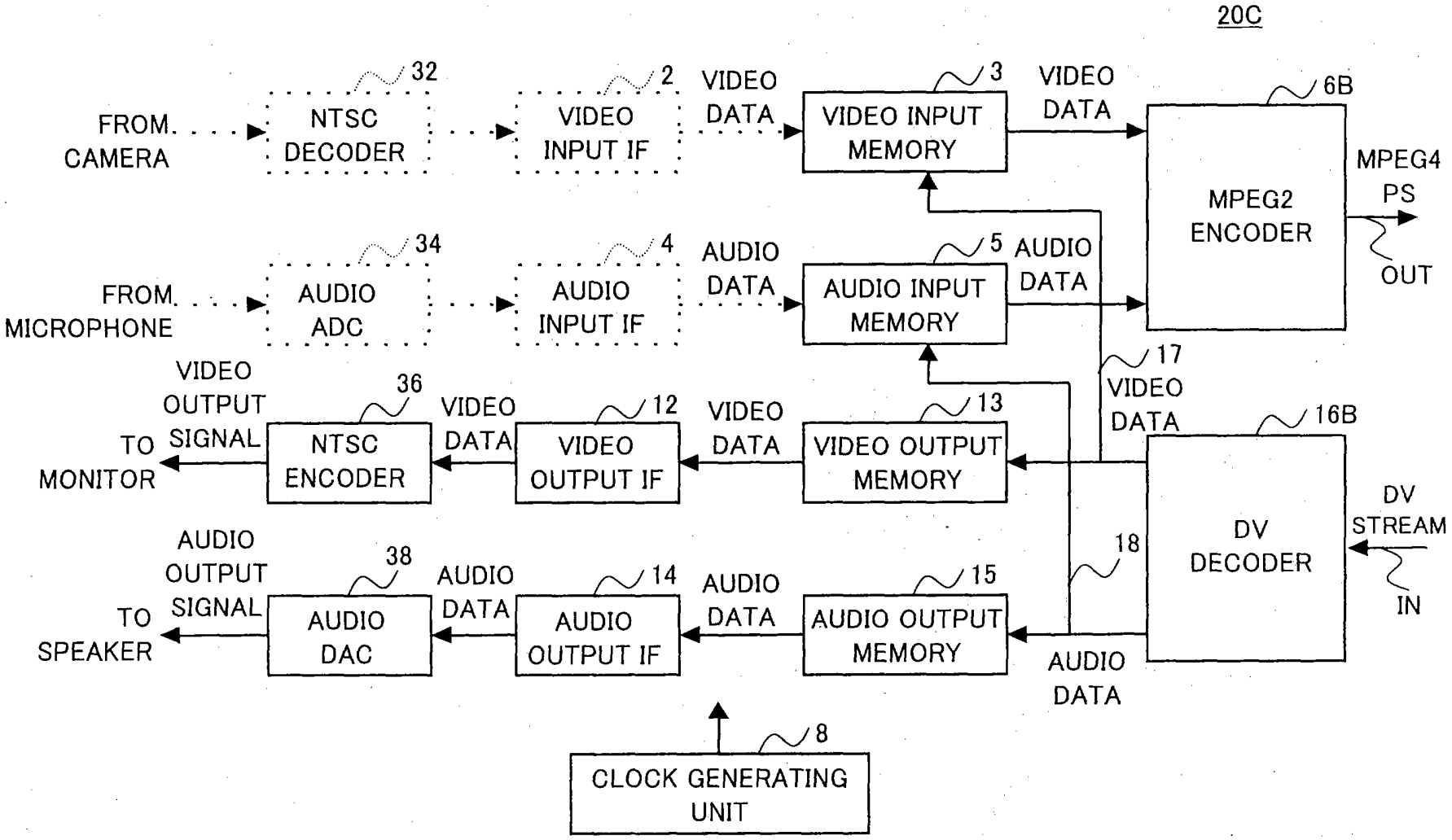

20C
32
NTSC DECODER
FROM CAMERA
2
VIDEO INPUT IF
VIDEO DATA
3
VIDEO INPUT MEMORY
VIDEO DATA
6B
MPEG2 ENCODER
MPEG4 PS
OUT
34
AUDIO ADC
FROM MICROPHONE
4
AUDIO INPUT IF
AUDIO DATA
5
AUDIO INPUT MEMORY
AUDIO DATA
17
VIDEO DATA
VIDEO OUTPUT SIGNAL
TO MONITOR
36
NTSC ENCODER
VIDEO DATA
12
VIDEO OUTPUT IF
VIDEO DATA
13
VIDEO OUTPUT MEMORY
16B
DV DECODER
DV STREAM
IN
AUDIO OUTPUT SIGNAL
TO SPEAKER
38
AUDIO DAC
AUDIO DATA
14
AUDIO OUTPUT IF
AUDIO DATA
15
AUDIO OUTPUT MEMORY
18
AUDIO DATA
8
CLOCK GENERATING UNIT

FIG.7

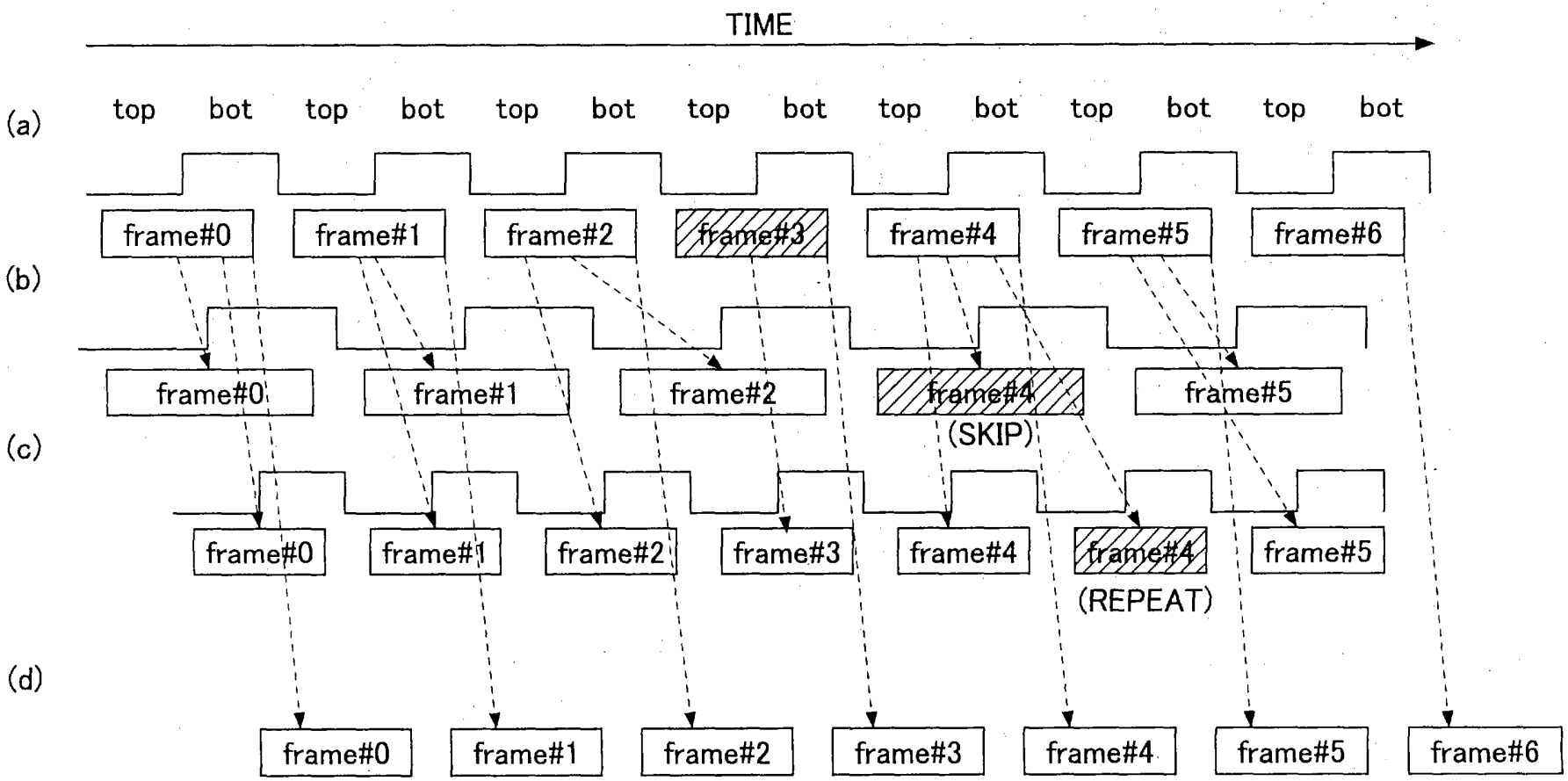
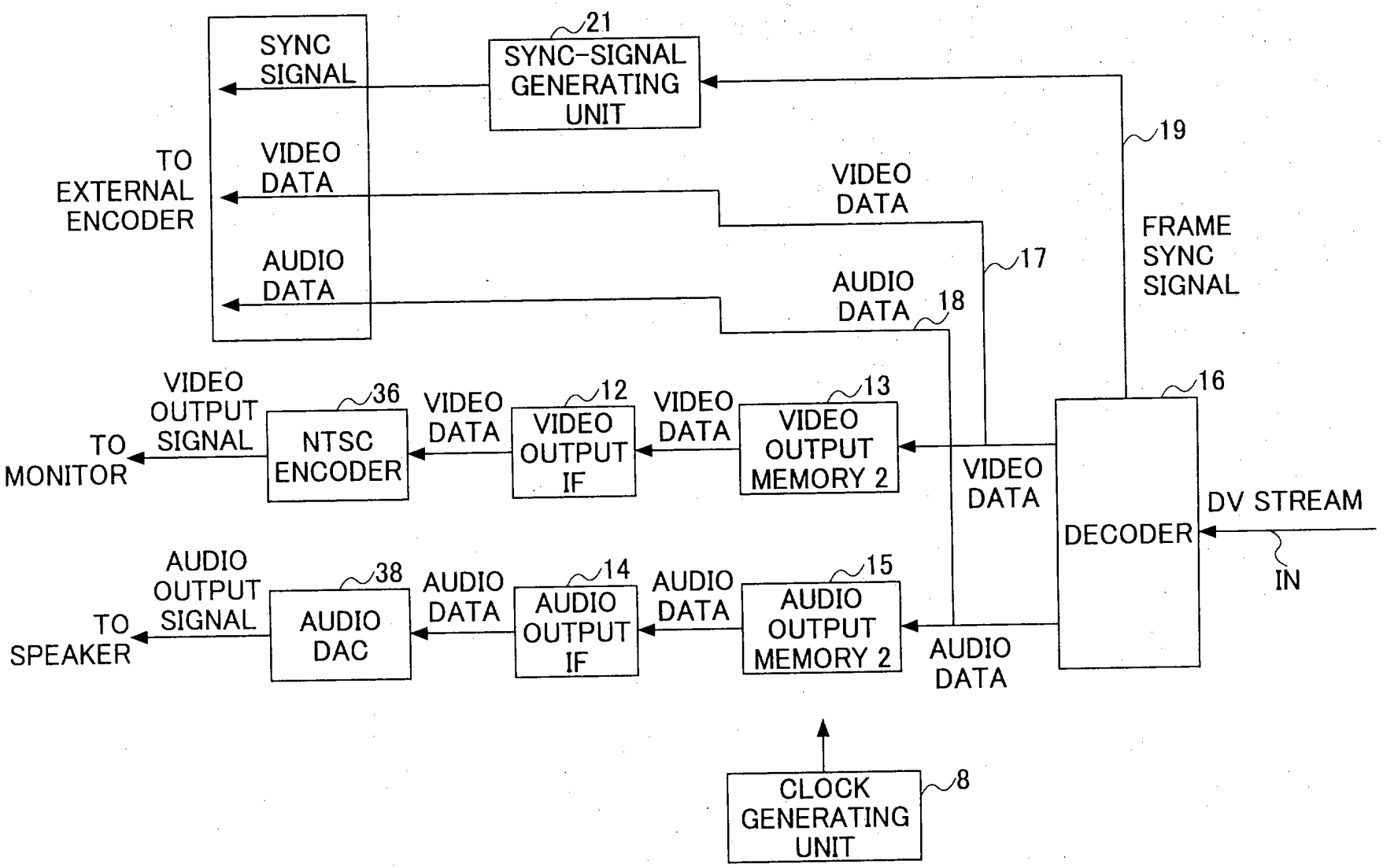

TIME
(a)
top
bot
top
bot
top
bot
top
bot
top
bot
top
bot
top
bot
(b)
frame#0
frame#1
frame#2
frame#3
frame#4
frame#5
frame#6
(c)
frame#0
frame#1
frame#2
frame#4
frame#5
(SKIP)
(d)
frame#0
frame#1
frame#2
frame#3
frame#4
frame#5
frame#0
frame#1
frame#2
frame#3
frame#4
frame#4
frame#5
(REPEAT)
frame#0
frame#1
frame#2
frame#3
frame#4
frame#5
frame#6

FIG.8


SYNC SIGNAL
21
SYNC-SIGNAL GENERATING UNIT
19
TO EXTERNAL ENCODER
VIDEO DATA
VIDEO DATA
FRAME SYNC SIGNAL
17
AUDIO DATA
AUDIO DATA
18
VIDEO OUTPUT SIGNAL
TO MONITOR
36
NTSC ENCODER
VIDEO DATA
12
VIDEO OUTPUT IF
VIDEO DATA
13
VIDEO OUTPUT MEMORY 2
VIDEO DATA
16
DECODER
DV STREAM
IN
AUDIO OUTPUT SIGNAL
TO SPEAKER
38
AUDIO DAC
AUDIO DATA
14
AUDIO OUTPUT IF
AUDIO DATA
15
AUDIO OUTPUT MEMORY 2
AUDIO DATA
CLOCK GENERATING UNIT
8